WHAT IS CLAIMED IS:

1. A method for processing a message for establishing a label-switched path, the method comprising:

a) determining whether or not the message includes extended information;

b) if the message does not include extended information, determining, using a first part of the message and routing information, whether or not to generate a further message to signal the label-switched path; and

c) if the message does include extended information, determining, using a second part of the message and routing information, whether or nor to generate a further message to signal the label-switched path.

2. The method of claim 1, wherein the message is a label-mapping message.

3. The method of claim 1, wherein the message includes a FEC-label association.

4. The method of claim 1, wherein the message includes a label distribution protocol label-mapping.

5. The method of claim 1, wherein the routing information was determined using an interior gateway protocol.

6. The method of claim 1, wherein the extended information includes resolution next hop information.

7. The method of claim 6, wherein the resolution next hop information includes a host address or prefix.

8. The method of claim 7, wherein the method is performed by a first node in a network domain, and

wherein the host address or prefix is of a second node in the network domain.

9. The method of claim 8, wherein the second node is an autonomous system border router.

10. The method of claim 8, wherein the first node runs an interior gateway protocol for generating routing information in the first node, and

wherein the routing information includes an entry for the second node.

11. The method of claim 1, wherein the first part of the message includes an address or prefix of a node.

12. The method of claim 11, wherein the node is an ingress node of the label-switched path.

13. The method of claim 12, wherein the method is performed by a second node in a first network domain, and

wherein the ingress node is in a second network domain.

14. A machine-readable storage device including a message comprising:

a) a first field including a label;

b) a second field including forwarding equivalency class information; and

c) a third field including label-switched path signaling resolution information.

15. The machine-readable storage device of claim 14, wherein the label-switched path resolution information includes an address or prefix of a first node.

16. The machine-readable storage device of claim 15, wherein the forwarding equivalency class information includes an address or prefix of a second node in a remote network domain, and

wherein the first node is in a local network domain.

17. The machine-readable storage device of claim 16, wherein the first node is an automonous system border router.

18. The machine-readable storage device of claim 15, wherein the first node is an autonomous system border router.

19. The machine-readable storage device of claim 14, wherein the message is a label mapping message.

20. The machine-readable storage device of claim 19, wherein the label-switched path resolution information includes an address or prefix of a first node.

21. The machine-readable storage device of claim 20, wherein the forwarding equivalency class information includes an address or prefix of a second node in a remote network domain, and

wherein the first node is in a local network domain.

22. The machine-readable storage device of claim 21, wherein the first node is an autonomous system border router.

23. The machine-readable storage device of claim 20, wherein the first node is an autonomous system border router.

24. The machine-readable storage device of claim 14, wherein the message is a label distribution protocol label mapping message.

25. Elements for processing a message for establishing a label-switched path comprising:

a) means for determining whether or not the message includes extended information;

b) means for determining, using a first part of the message and routing information, whether or not to generate a further message to signal the label-switched path if the message does not include extended information; and

c) means for determining, using a second part of the message and routing information, whether or nor to generate a further message to signal the label-switched path if the message does include extended information.

26. The elements of claim 25, wherein the message is a label-mapping message.

27. The elements of claim 25, wherein the message includes a FEC-label association.

28. The elements of claim 25, wherein the message includes a label distribution protocol label-mapping.

29. The elements of claim 25, wherein the routing information was determined using an interior gateway protocol.

30. The elements of claim 25, wherein the extended information includes resolution next hop information.

31. The elements of claim 30, wherein the resolution next hop information includes a host address or prefix.

32. The elements of claim 31, wherein the elements are included in a first node in a network domain, and

wherein the host address or prefix is of a second node in the network domain.

33. The elements of claim 32, wherein the second node is an autonomous system border router.

34. The elements of claim 32, wherein the first node runs an interior gateway protocol for generating routing information in the first node, and

wherein the routing information includes an entry for the second node.

35. The elements of claim 25, wherein the first part of the message includes an address or prefix of a node.

36. The elements of claim 35, wherein the node is an ingress node of the label-switched path.

37. The elements of claim 36, wherein the elements are included in a second node in a first network domain, and

wherein the ingress node is in a second network domain.